

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2005/000022

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: C07D 403/04, 403/14, 401/04, 407/14, 409/14, 413/14; A61K 31/497, 31/4439, 31/506; A61P 37/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

SEE BELOW UNDER ELECTRONIC DATA BASE CONSULTED

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
STN: Partial Substructure search based on exemplified compounds

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2003/099811 A1 (CYTOPIA PTY LTD) 4 December 2003 See especially compounds 107, 108, 193	1-9
X	WO 2001/000213 A1 (MERCK & CO. INC) 4 January 2001 See examples 82, 83, 85-92, 111, 112, 130-135, 138, 139, 143-151, 167-170, 175-181	1-9

☐ Further documents are listed in the continuation of Box C ☒ See patent family annex

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
11 March 2005

Date of mailing of the international search report
17 MAR 2005

Name and mailing address of the ISA/AU
AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaustalia.gov.au
Facsimile No. (02) 6285 3929

Authorized officer

R.L. POOLEY
Telephone No : (02) 6283 2242

INTERNATIONAL SEARCH REPORT

International application No.

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1-9 (in part)
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claims 1-9 encompass a broad range of compounds that are not fully supported by the description and which cannot be searched economically across the full breadth of these claims. Accordingly, the search has been largely restricted to compounds for which there is descriptive support, namely the exemplified compounds.
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2005/000022

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO	2003/099811	CA	2486187	EP	1511742	GB	2398781
		US	2005004140				
WO	2001/000213	AT	253915	AU	56369/00	CA	2383546
		DE	60006541	EP	1206265	JP	2003523942
		US	6498165				
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.							
END OF ANNEX							

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2005/000022

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

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because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 1-9 (in part)

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Claims 1-9 encompass a broad range of compounds that are not fully supported by the description and which cannot be searched economically across the full breadth of these claims. Accordingly, the search has been largely restricted to compounds for which there is descriptive support, namely the exemplified compounds.

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because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

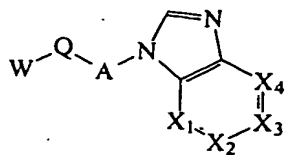
Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

Box No. IV Text of the Abstract (Continuation of item 5 of the first sheet)

A compound of the general formula



or pharmaceutically acceptable prodrugs, salts hydrates, solvates, crystal forms or diastereoisomers thereof, wherein A represents a variety of six membered nitrogen containing heterocyclic rings, Q is a bond, halogen, C₁₋₄ alkyl, O, S, SO₂, CO or CS and X₁, X₂, X₃ and X₄ are optionally substituted carbon wherein one is substituted by 9 specific substituents or one can be nitrogen. Compositions comprising a carrier and at least one compound of the above formula are also provided. Further provided are methods of treating tyrosine kinase-associated disease states by administering a compound of the above formula and methods of suppressing the immune system of a subject by administering a compound of the above formula. 1